Production and distribution networks now avail forage planting materials to smallholder dairy producers in East Africa: ILRI outcome story 2009

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National Agricultural Research Systems (NARS), Non governmental organizations (NGOs) and the private sector have increased their focus on livestock feeds and are now producing and distributing forage seeds and Napier grass cuttings to meet demands from smallholder dairy farmers in East Africa.

The output target for the research leading to this outcome was highlighted in ILRI's 2005-2007 medium term plan (*Forage diversity saved, studied and used to contribute to agricultural sustainability of smallholder farming systems*) under the people, Livestock and the Environment Theme. This output was achieved through an approach that integrated provision of forage seeds and Napier grass cuttings from the ILRI Herbage Seed Unit with provision of information through the Tropical Forages interactive selection tool (http://www.tropicalforages.info) and training in forage seed production by ILRI. ILRI has promoted access to forage seeds to enhance the use of forages in sustainable farming systems in sub-Saharan Africa and had been the major supplier of forage seeds in the region, providing over 7000 samples of 60 best bet lines of forage legumes, grasses and fodder trees to development workers, ministries, NGOs and farmers since 1990. Work with national programs on disease-resistant Napier grass varieties to support the scaling out of smallholder dairy activities across East Africa was documented in the MTP 2008-2010.

Smallholder dairy farmers in East Africa have changed their land use to increase areas under forage production. Forages are effective in increasing milk yields by as much as 50% while maintaining the natural resource base, with positive effects on soil fertility, increasing ground cover for stabilization and carbon sequestration. Napier grass is the most important forage crop used in dairy systems in Kenya, Uganda and Ethiopia and in some areas constitutes between 40 to 80% of the forage for more than 0.3 million smallholder dairy farms in Kenya (Staal *et al.*, 1997). Introducing forages into the system is predicted to increase milk production by up to 30% (Orodho, 2006). As a result of this increased demand for forage planting material, new opportunities to produce and distribute forage seeds and other planting materials have arisen. Building upon the planting material and capacity strengthening from ILRI, NGOs, private and public sector have been able to respond to this demand by growing and distributing forage seed and planting material.

In Ethiopia, ILRI provided over 1 million cuttings of Napier grass in 2004 for distribution through the Ministry of Agriculture and provided 900kg of *Sesbania* seed in response to over 200 requests to NARS, NGOs and the private sector from 1990 to date. *Sesbania* has been widely used in the smallholder sector as shown in surveys in Ethiopia (Mekoya et al. 2008) and both Napier cuttings and *Sesbania* seeds are now being produced and disseminated to farmers in Ethiopia by a local seed company, Eden Field Agri–Seed Enterprise (attached) and Napier grass cuttings are being disseminated by the Adami Tulu Research Centre. Planting material of two smut-resistant Napier grass clones Kakamega I and II, originally provided from the in trust collection held by ILRI, are already being made available to farmers in Kenya. The most productive Napier grass clone, Kakmega 1 is being grown at bulking sites maintained by Farmer Training Centres and Parent-teacher Associations and planting material is being disseminated from them through local delivery pathways and by farmer to farmer exchange (Mwendia et al., 2006).

References

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Staal, S., Chege, L., Kenyanjui, M., Kimari, A., Lukuyu, B., Njubi, D., Owango, M., Tanner, J., Thorpe, W. and Wambugu, M. 1997. Characterisation of dairy systems supplying the Nairobi milk market: A pilot survey in Kiambu District for the identification of target groups of producers. Nairobi, Kenya: ILRI. http://mahider.ilri.org/handle/10568/2059

Evidence provided to the CGIAR:

Eden Field Agri–Seed Enterprise leaflet.

Fodder round table meeting presentations by Adami Tulu Research Centre
http://dgroups.org/Community.aspx?c=28c01de6-0758-489d-b75b-2976cc114e8a

Research papers by Mekoya et al and Mwendia et al. (attached)

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